

Designer Babies: Fact or Fiction

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Introduction

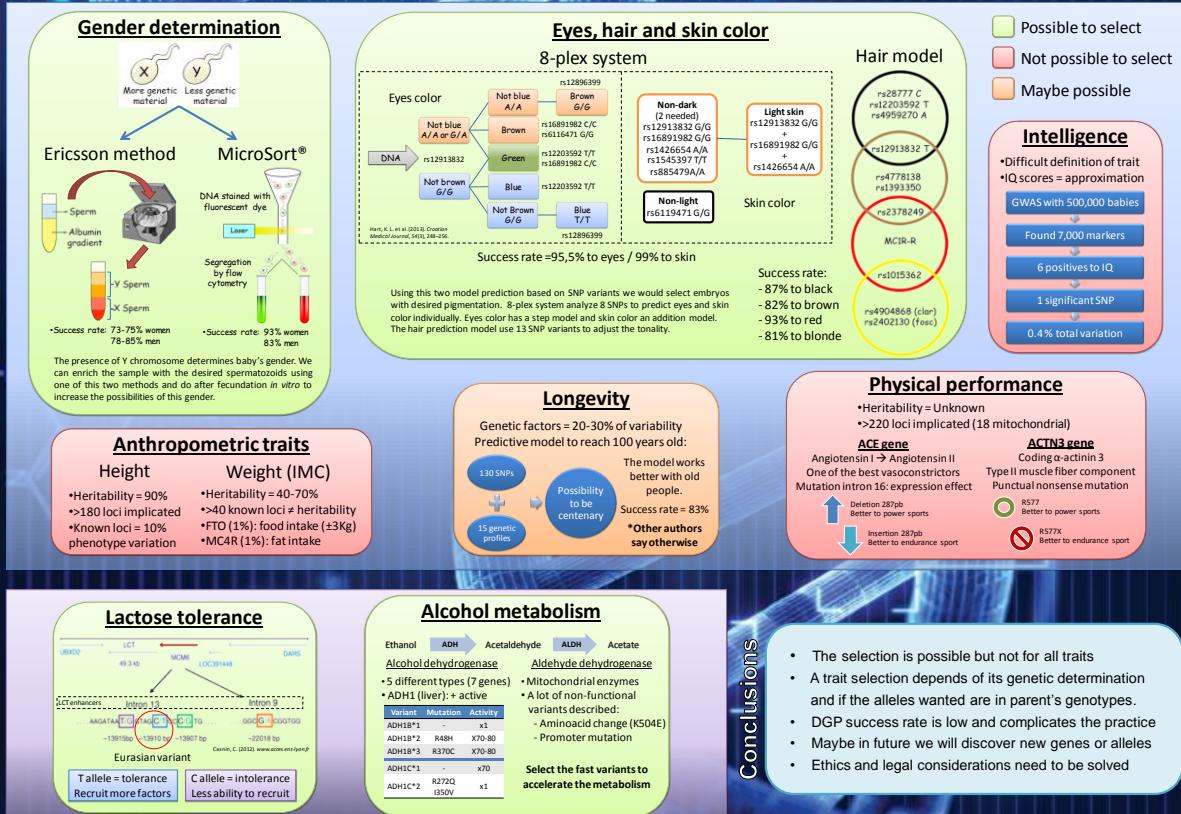
The new technologies in reproductive biology opens a lot of possibilities, one of this may be the selection of phenotypic traits in babies. Using Preimplantation genetic diagnosis (PGD) and screening genetic variants by microarrays or another genomic analysis we could be able to select children with the features desired by parents. Now, the question is whether this is really possible genetically. This review aims to analyze the genetics of several traits and discuss the possibility of being selected in embryos. Finally, consider an ethical evaluation to explore the consequences and the advantages of this practice.

Methods

Bibliographic search of genetic determination of the traits in study and discussion about if it's possible to select in embryos.

If it's possible, explain methods to do it.

Potential traits in demand



Other traits on supply

Pros

- The selection of a couple or a no-disease phenotype in embryo are not considered an immoral practice
- "Genes determine who we are" vs "who we are is a result of multiple genes and environment interaction"
- Only give them the potential but they can choose who they will be
- Beneficial traits vs trivial traits
- The enhancement of society

Cons

- Who could have access to this technology? This could create a social segregation and discrimination.
- Babies like another manufactured product of capitalism
- Where is the limit between acceptable and unacceptable? What traits could be selected?
- Is secure this practice? The "Slippery slope" problem.

Conclusions

- The selection is possible but not for all traits
- A trait selection depends of its genetic determination and if the alleles wanted are in parent's genotypes.
- DGP success rate is low and complicates the practice
- Maybe in future we will discover new genes or alleles
- Ethics and legal considerations need to be solved

Further readings

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